

## **CLAIMS:**

1. Method for producing a tube with a compressible peripheral wall, comprising the steps of  
  
injection molding of an integral unfinished tube comprising a tube body, a tube shoulder and a tube outlet using a female die, a core and a neck mold,  
  
demolding the unfinished tube by withdrawing the core while retaining the unfinished tube in the neck mold, and withdrawing the female die,  
  
releasing the unfinished tube from the neck mold, and  
  
flattening and closing the open end of the tube body.
2. The method of claim 1, characterized in that a sheet or a sleeve is placed between the core and the female die and caused to contact the core or the female die.
3. The method of claim 1 or 2, characterized in that a sheet is placed between the core and the neck mold and caused to contact the core or the neck mold.
4. The method of one of claims 1-3, characterized in that air is supplied through a blow line of the core to between the unfinished tube and the core to reduce adhesion to the core.
5. The method of one of claims 1-4, characterized in that a demolding bevel of the female die is made larger than a demolding bevel of the core.
6. The method of one of claims 1-5, characterized in that the female die or the core is provided with a slide coating.
7. The method of claim 2 or 3, characterized in that the sheet or the sleeve is made of a material having high resistance against the material to be filled into the tube.
8. The method of claim 2 or 3, characterized in that the sheet or the sleeve is made of a material impermeable to vapor, gas or solvent.
9. The method of claim 2 or 3, characterized in that the sheet or the sleeve comprises a printed label or a decorative sheet.

10. The method of claim 2 or 3, characterized in that the sheet or the sleeve is made from a plastically deformable material that counteracts the restoring property of the soft plastic material.

11. The method of one of claims 1-10, characterized in that the core or a part thereof is supported at the neck mold during at least a part of the injection phase.

12. The method of one of claims 1-11, characterized in that, in a first injection phase, conically centered webs support the core or a part thereof at the neck mold in a centering portion between the tube shoulder and the tube outlet, and, in a fill-up phase, the core or a part thereof is held spaced from the centering portion to fill the portions held free by the webs during the injection phase.

13. A tube produced according to the method of one of claims 1-12, characterized in that ribs are formed near the tube shoulder.

14. A tube produced according to the method of one of claims 1-12, characterized in that grooves are provided near the tube shoulder to hold the unfinished tube when the injection mold is opened, and that a portion of reduced wall thickness is provided adjoining the grooves.